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### I ANDIN BUNDUN II BUNDUN IISIN DONK BORKI BUNDI IIKI 10 IN DONKO DINK BOKAT YARA TITUK DINK SIJARAN TODI YIRI SULT

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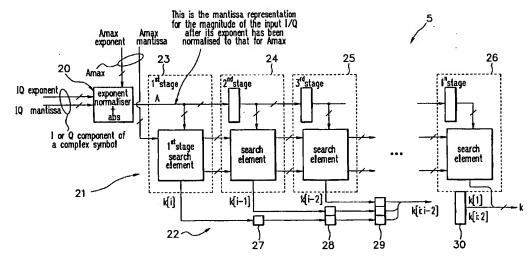
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(54) Title: DEMODULATION OF A MULTI-LEVEL QUADRATURE AMPLITUDE MODULATION SIGNAL



(57) Abstract: A device (5) for determining k representative of the magnitude A of an orthogonal component of a Quadrature Amplitude Modulation (QAM) symbol, including: multi-stage binary search circuitry (21) for conducting a multi-stage binary search for the value of A between predetermined maximum and minimum values Amax and Amin, each stage producing a single bit binary output; and integer value construction circuitry (22) for constructing the integer value k by juxtaposing the binary outputs from consecutive stages of the binary search, where W = (Amax - Amin)/ n, n equals 2i and i is an integer, Amax is a maximum detectable level of the magnitude Λ, Amin is a minimum detectable level of the magnitude Λ, and W is the incremental level between consecutive values of the integer value k.

### PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU		
PCT	То:	
NOTIFICATION OF THE RECORDING OF A CHANGE	MARUYAMA, Takao Maruyama Patent Office SAM Build. 3 floor	
(PCT Rule 92bis.1 and Administrative Instructions, Section 422)	38-23, Higashi-Ikebukuro 2-chome Toshima-ku, Tokyo 1700013 Japan	
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The following indications appeared on record concerning:      X the applicant     X the inventor	the agent the common representative	
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Facsimile No.		
	Teleprinter No.	
The International Bureau hereby notifies the applicant that the X the person the name the additional that the same that		•
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3. Further observations, if necessary: The applicant identified in Box 2 should be added as an additional applicant for US only and inventor for all designated states.		
4. A copy of this notification has been sent to:		
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